

Charleston 22 Jan 1838

My dear Mr Cambridge Mass.

My dear Sir,

Mess^{rs} Little, Brown & Co announce that Peirce's Mechanics is ready for delivery, also that Davis' translation of Gauss' Theoria Motus is also ready. I have some \$17. I think, in your ^{hands} in anticipation of these debts, will you pay \$7⁵⁰/₁₀ for Peirce, and \$4 for Davis from which will leave about \$8 in your hands for I will find some use. I am a subscriber to Davis' work and therefore consider myself bound to pay, but as I have had a copy presented to me I do not need the work, and would be glad if they will get some one else to take my copy. Have the goodness to try for me.

Your letter of 12 Nov. was received, but had not time to write presuming you would take silence not for consent but refusal. I would desire to give Hervey aid, but cannot purchase a collection of plants neither belonging to our own country, nor to families ^{with} which I am not somewhat familiar. The cost would be evidently more than the profit.

Now for a few words on Botany. — All our Pines as far as I have them afford left handed turpentine. I have not yet P. Banksiana, but Lapham hopes to get some for me. I have made a beginning in collecting European turpentine and Pinus. Can you give me any names in Europe or in Asia Minor ~~taxodium~~ could apply for specimens, of Pinus Coriacea, Pinus Bainesii, or Pinus coccinea, Pinus mitis. In our Pinus resinosa, particularly, to whom shall I write? As far as I can see at present, the turpentines of Abies, Pinus Larix differ in their action in light from those of Pinus

although I can ^{not} affirm it generally, as I have not had specimens enough. I still want the pentine from our northern Larix, don't forget me. — I have got Eardlicher's Synop. Conif. and am glad you recommended it. What other similar Monographs are there, of any families I mean, do mention them. See another one in the Coniferae 'Carrère, Traité des Conifères 1850', what is the character of it? I have also Dietrich; I like it as an Index, but there are gaps, Terms pro & con are wanting, and in the ^{very} range he professes to take, Similar is wanting! Pursh or Michaux mention P. rigida as covering mountains in N. Carolina for miles; did it seem to you the same tree as your northern P. rigida?

In looking over genus Panicum in your Botany of N. States I do not find P. muricatum Michx. what have you done with it? Is P. nervosum Muhl. different from P. latifolium.

What do you find the best application to protect the plants in the Herbarium from insects? In our climate they are very destructive.

I have recently brought before our Elliott Society of Natural History, the four species (or distinct forms at least) of Cactus or Cactaceae that grow within 10 miles of Charleston all belonging to genus Opuntia; only one is noticed by Elliott and other botanical writers, O. vulgaris (C. Opuntia Ell. &c.); I have called the others O. tannoides, O. macrocarpa, and O. fruticulenta. Do you care to have living samples sent to you? The cheapest way, probably would be by ship to Boston. I will wait to hear before I inflict them on you. It is possible however that you or Engelman might like to see them.

Now about Smilaxes I have something to say. I have your Bot. of N. States as the latest available starting point, as far as

our species are included. It has been a help, as your notes

always are not. I must add some corrections & remarks at least.

1. You do not distinguish colors exactly enough, or else your northern plants are not the same as ours. You call the berry of S. Walteri red, and the berries of S. lanceolata and S. laurifolia red too; well so they are but reds are different as red lead, and red wine. Our S. Walteri has a coral-red berry as red as a Holly berry or as seeds of Erythrina; S. lanceolata & S. laurifolia berries are red mixed with brown and sometimes ripens gradually in streaks, like certain apples, these streaks gradually coalescing and becoming a ^{very} red and finally a purplish or blackish red. The color of berries of S. Walteri is insufficient to distinguish it from every other of our Smilaxes; the berry is sometimes decidedly pointed or 'acuminate' though not always so.

2. You say S. Walteri has leaves inclining to be ^{evergreen} ~~deciduous~~ at least ^{Southward} ~~farther South~~; our S. Walteri is the most or earliest deciduous of all our species, it is difficult to get good leaves with the rich red berries, the berries themselves remaining until Spring. Can your species and ours be the same? does S. Walteri grow near you? 3. Neither you nor Pursh nor others notice the fact that some of our species retain their berries (in some seasons at least) green or yellowish-green all through the winter, and ripen them at the beginning of the following summer. I have specimens of S. lanceolata with flower or small fruit of 1837 with fruit of 1838 in different stages of ripening, in July or Aug. 1837. S. laurifolia does the same, and in this state in the winter or Spring is Pursh's S. alba.!! Is any thing like this observed in your region? 4. Are there not all gradations of length between the moderately long peduncles of S. tannoides and the very long peduncles of S. Goodeniana? I find it hard to fix the limits, and the forms of the leaves are too various to read much help, and they appear to be 'coriaceous' in different degrees. If I could fix the character

Of those two species I should have my ideas nearly fixed
about the whole genus. Can you readily distinguish
S. tannoides from *S. leucos china*? I want very much specimens
of your northern *S. hispida*. Have you remarked in any our U.S.
specie any very marked differences in specimens considered
by you as belonging to the same species, but some proceeding from
an arctic and others sent you from the South? B. of the Family
Simulacea you remark that it is "a group with no clear marks of distinction
from the rest; what do you mean by the rest?" not Liliaceae surely?

I propose separating *S. parvula* + Walter with the two
allied foreign species, as a genus or, perhaps better as a distinct subge-
nus nearly if not quite as distinct as *Coprosma*, what do you
think of it? They are unlike the rest of the genus in being pubescent
and not smooth, and being prostrate, never climbing, and rarely
rising more than a foot or two above the soil added in surrounding
plants in which they rest; moreover the colour of our species is a
yellowish red or orange and vivid in shape.

In your letter of 24 July last, you offered to get me
specimens of *Amer. Acad.* in etc. I shall be glad to
get them but must inform you that I am not a subscriber
nor can I become one. I have *Proceed. Amer. Acad.* to page 184 of
vol III.

What do you make of the enclosed plant. I found it there
in the Mts. of N. Ca. in the summer (Aug or Sept) without blossoms
fruit.

Can't you give me something of a letter. I am thankful
for your little cut-me-shops, ~~but~~ but will be pleased with
something longer.

Hope Miss Cummins here is improving in her description now.
Couldn't she bring us some something botanical. I speak for Pines and cacti.

Yours truly

Louis R. Gillet.